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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/687,764

10/20/2003

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EXAMINER

GOMA, TAWFIK A

ART UNIT

PAPER NUMBER

2627

MAIL DATE

DELIVERY MODE

06/11/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/687,764	<b>Applicant(s)</b> RYOO ET AL.	
	<b>Examiner</b> TAWFIK GOMA	<b>Art Unit</b> 2627	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)<br>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)<br>3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____. | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date _____.<br>5) <input type="checkbox"/> Notice of Informal Patent Application<br>6) <input type="checkbox"/> Other: _____. |
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### DETAILED ACTION

This action is in response to the amendment filed on 1/29/2008.

#### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 7, 8 and 11 rejected under 35 U.S.C. 103(a) as being unpatentable over Komma et al (US 5644413) in view of Yagi et al (US 5754513).

Regarding claim 1, Komma discloses an optical pickup apparatus comprising: a light source which emits laser light (45, fig. 19); a beam splitter which changes the travel path of incident light (48, fig. 19); an objective lens which condenses light passed through the beam splitter to form a light spot on an optical recording medium (50, fig. 19); and a photo detector which receives light reflected from the optical recording medium and then passed through the beam splitter to detect an information signal and an error signal (53, fig. 19), wherein the optical pickup apparatus further comprises a grating which diffraction-transmits all incident light (94, fig. 20), a wavelength plate which changes polarization characteristic of incident light (95, fig. 20), and an optical output compensating lens which compensates output of light incident from the light source (100, fig. 20), all of which being disposed on an optical path between the light source and the beam splitter (99, fig. 19), wherein at least two of the grating, the wavelength plate, and the optical output compensating lens are formed in one body (99, figs. 19 and 20).

Furthre regarding claim 1, Komma discloses a holder in which the light source is fixed (45, fig. 19) but fails to disclose a cylinder, in which at least two of the grating, the wavelength plate, and the optical output compensating lens are fixed and which is movable in an optical axis direction with respect to the holder and is installed rotatably, wherein a position of the cylinder is adjustable in the optical axis direction and a rotation direction with respect to the holder. In the same field of endeavor, Yagi discloses a cylinder (121, fig. 82a) supporting optical elements including a grating (12, fig. 82a) and which is capable of supporting the elements to be rotatable about an optical axis (col. 66 lines 9-22) and adjustable in an optical axis direction (col. 66 lines 15-22 and col. 61 lines 12-22). It would have been obvious to one of ordinary skill in the art to modify the optical pickup disclosed by Komma by providing for a cylinder for rotating and moving the optical element as taught by Yagi. The rationale is as follows: One of ordinary skill in art at the time of the applicant's invention would have been motivated to provide the rotatable and movable support in order to adjust parameters of an optical axis for multiple types of disks used with a single pickup (see Yagi, col. 61 lines 12-22).

Regarding claim 2, Komma further discloses wherein the grating is formed on an optical incident surface and/or an optical emitting surface of the wavelength plate, so that the grating and the wavelength plate are formed in one body (99, fig.19).

Regarding claim 3, Komma further discloses wherein the wavelength plate, which is formed in one body with the grating, is bonded to the optical output compensating lens (99, fig. 20).

Regarding claim 4, Komma further discloses wherein the grating is formed on

an optical incident surface and/or an optical emitting surface of the optical output compensating lens, so that the grating and the optical output compensating lens are formed in one body (94, 100, 99, fig.20).

Regarding claim 5, Komma further discloses wherein the wavelength plate and the optical output compensating lens are bonded to each other (95, 100, fig. 20).

Regarding claim 7, Komma further discloses wherein the grating is formed on an optical incident surface of the wavelength plate, so that the grating and the wavelength plate are formed in one body (94, 95, fig. 20).

Regarding claim 8, Komma further discloses wherein the wavelength plate, which is formed in one body with the grating, is bonded to the optical output compensating lens (95, 100, fig. 20).

Regarding claim 11, Komma further discloses wherein the grating is formed on an optical incident surface of the optical output compensating lens, so that the grating and the optical output compensating lens are formed in one body (94, 100, fig. 20).

Claims 9, 10 and 12 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Komma et al (US 5644413) in view of Yagi et al (US 5754513)

Regarding claims 9, 10 and 12 Komma in view of Yagi disclose all of the components of the optical element and their alternative arrangement as applied above (see claims 1-5, 7, 8 and 11). Claims 9, 10 and 12 are directed to a rearrangement of the optical elements disclosed by Komma. It would have been obvious to one of ordinary skill in the art to modify the optical element disclosed by Komma by rearranging the optical elements. The claims are deemed an

obvious rearrangement that does not change the scope of the overall invention (see MPEP 2144.04 Paragraph VI (C)). See *In re Japikse*, 86 USPQ 70 (CCPA 1950).

### ***Response to Arguments***

Applicant's arguments filed 1/29/2008 have been fully considered but they are not persuasive. Applicant's argument that Yagi's use of rotation for the diffraction grating cylinder teaches away from movement of the diffraction grating in the optical axis direction is not persuasive and is not an accurate representation of Yagi's disclosure. Yagi discloses that in example 36, a rotation function for the diffraction grating is incorporated with the compensation means which moves the grating in the optical axis direction, such that both functions operate together. The rotation function is incorporated in order to correct for differences in track pitches, whereas the compensation means which moves in the optical axis direction remains to compensate for differences in thickness. The applicant has mischaracterized the disclosure of Yagi in an attempt to show that movement in the optical axis direction is not compatible with the rotation disclosed by Yagi. Applicant cites to Yagi and argues that "Example 36 is implemented so 'jolting can be prevented' because 'the direction of movement or support of the correction means is different from the direction for access of the optical pick-up apparatus'." The correct citation to Yagi which corresponds to the portion applicant is apparently referring reads as follows: "Furthermore, when the direction of movement or support of the correction means is different from the direction for access of the optical pick-up, jolting can be prevented, so that focusing and tracking control can be securely carried out." This portion of Yagi's disclosure is used to show one of the advantages of the previously discussed system which incorporates both

the focusing compensation means with the rotation means that corrects a tracking error which results due to changes in track pitch.

### *Conclusion*

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TAWFIK GOMA whose telephone number is (571)272-4206. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tawfik Goma/  
Examiner, Art Unit 2627

/Joseph H. Feild/  
Supervisory Patent Examiner, Art Unit  
2627